



现 Solid State Devices, Inc.

信息 技术资讯 精彩尽在SSDI!

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DESIGNER'S DATA SHEET

Part Number / Ordering Information^{1/}

SPA555


Terminals^{2/} = Turret Terminals
 L = Copper Leads
 SM = Surface Mount

Voltage M = 1000 V
 N = 1200 V

SPA555 Series

20A / 1000 - 1200V

**SiC SCHOTTKY
SINGLE PHASE BRIDGE**

Features:

- 1200V Silicon Carbide Schottky Rectifier
- Average Output Current 20 Amps
- No Reverse Recovery
- No Forward Recovery
- No Switching Time Change over Temperature
- Small Package Size (1.25 x 1.25 x 0.350")
- Cases with Aluminum Heatsink are Available. Consult Factory
- TX and TXV & S Level Screening Available

Maximum Ratings

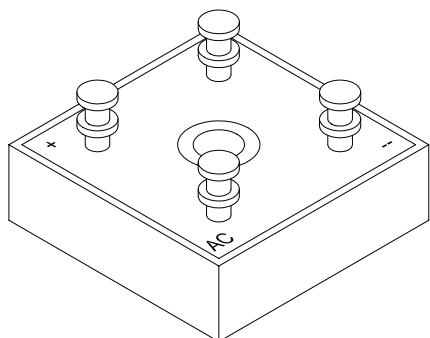
Symbol

Value

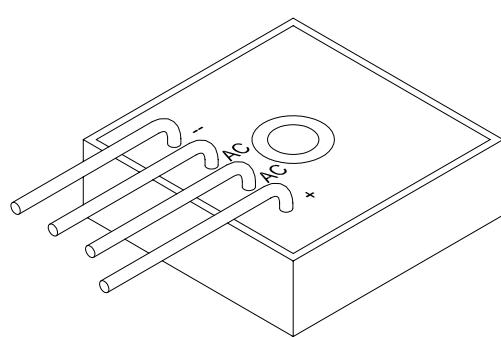
Units

| | | | | |
|---|------------------------------------|--|--------------|-------|
| Peak Repetitive and Peak Surge Reverse Voltage | SPA555M SPA555N | V _{RRM} V _{RSM} V _R | 1000 1200 | Volts |
| Average Rectified Forward Current ^{4/} (Resistive Load, 60 Hz Sine Wave, T _C = 55°C) | I _O | 20 | | Amps |
| Peak Surge Current ^{3/} (8.3 ms Pulse, Half Sine Wave, T _A = 25 °C) | I _{FSM} | 30 | | Amps |
| Operating & Storage Temperature | T _{op} & T _{stg} | -55 to +150 | | °C |
| Junction Temperature | T _J | -55 to +200 | | °C |
| Maximum Thermal Resistance Junction to Case | R _{θJC} | 1.5 | | °C/W |

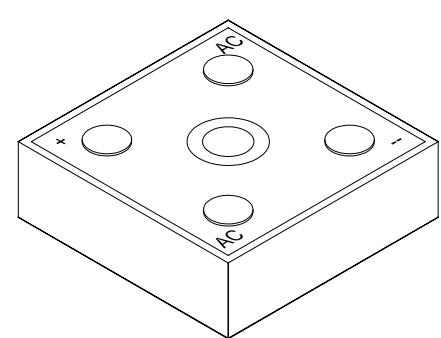
SPA555 ()



SPA555 (L)



SPA555 (SM)



NOTE: All specifications are subject to change without notification.
SCD's for these devices should be reviewed by SSDI prior to release.

DATA SHEET #: RA0038C

DOC

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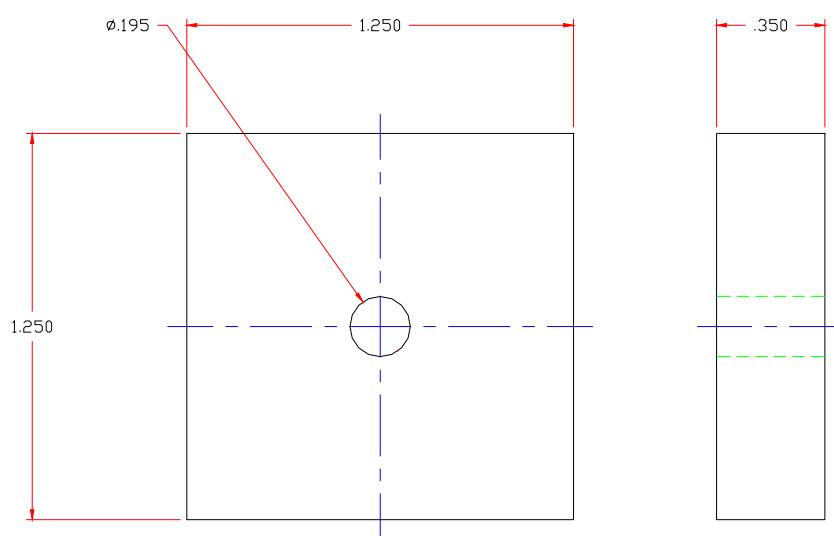
| Electrical Characteristic ^{5/} | | Symbol | Min | Typ | Max | Units |
|---|---|---|-------------|----------------------|----------------------|-----------------|
| Instantaneous Forward Voltage Drop (T _A =25°C, 300 - 500 μsec pulse) | I _F = 2.0 A I _F = 5.0 A I _F = 10 A | V _{F1} V _{F2} V _{F3} | — — — | 1.20 1.50 2.10 | 1.30 1.75 2.50 | V _{DC} |
| Instantaneous Forward Voltage Drop (300 - 500 μsec pulse) | T _A = -55°C, I _F = 5 A T _A = 150 °C, I _F = 5 A | V _{F4} V _{F5} | — — | 1.35 2.30 | 1.50 2.80 | V _{DC} |
| Reverse Leakage Current (Rated V _R , T _A = 25°C, 300 μsec pulse minimum) | I _{R1} | — | — | 20 | 250 | μA |
| Reverse Leakage Current (Rated V _R , T _A = 150°C, 300 μsec pulse minimum) | I _{R2} | — | — | 100 | 1000 | μA |
| Junction Capacitance (V _R = 10V, f = 1MHz, T _A = 25°C) | C _J | — | — | 280 | 320 | pF |

NOTES:

- * Pulse Test: Pulse Width = 300 μsec, Duty Cycle = 2%
- 1/ For Ordering Information, Price, and Availability Contact Factory.
- 2/ For Package Outlines Contact Factory.
- 3/ Electrical Characteristic per Leg
- 4/ Derate Linearly at 0.28A/°C for T_C > 55°C.
- 5/ Unless Otherwise Specified, All Electrical Characteristics @25°C.

Available Part Numbers:

SPA555M; SPA555ML; SPA555MSM
SPA555N; SPA555NL; SPA555NSM

Mounting Diagram: ^{2/}**Terminal Details**

| SPA555 (SM) | SPA555 (L) | SPA555 () |
|---|----------------------------------|---|
| <p>Terminals are spaced at .650" square</p> | <p>Leads are spaced at .250"</p> | <p>Terminals are spaced at .650" square</p> |